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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,836	04/04/2001	Kazunori Shionoya	018656-232	1177
7590	06/30/2005		EXAMINER	
Platon N. Mandros BURNS, DOANE, SWECKER & MATHIS, L.L.P. P.O. Box 1404 Alexandria, VA 22313-1404			MILJA, MARK R	
			ART UNIT	PAPER NUMBER
			2622	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/824,836	Applicant(s) SHIONOYA, KAZUNORI
	Examiner Mark R. Milia	Art Unit 2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 16 February 2005.
2a) This action is FINAL. 2b) This action is non-final.
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-9 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-9 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 2/16/05, and has been entered and made of record. Currently, claims 1-9 are pending.

Response to Arguments

2. Applicant's arguments filed 2/16/05 have been fully considered but they are not persuasive. In response to applicant's arguments regarding the rejection of claims 1-9, more specifically claims 1, 4, and 7, wherein on pages 1-5, the applicant asserts that the reference of Ho does not disclose "a memory board including a memory controller mediating data communication between the apparatus and the memory device" in combination with the other features of the claims. The examiner respectfully disagrees with the applicant because the Ho reference does disclose such a feature. Particularly, as shown in Fig. 1 of Ho, the examiner understands the memory subsystem (10) to be a memory board and as such the memory modules (12A) and (12B) can be connected to add additional memory capacity to the system. The memory subsystem contains a memory controller (22) for mediating communication between the apparatus and the memory device as described in column 3 line 47-column 4 line 60. Also, it is well known

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in the art that memory boards are printed circuit boards, as stated in the Ho reference, and therefore Ho anticipates the claimed invention.

3. Therefore, the rejection of claims 1-9, as cited in the Office Action dated 11/17/04, is maintained and repeated in this Office Action.

Claim Rejections - 35 USC § 102

4. The text of those sections of Title 35, U.S. Code not included in this Office Action can be found in a prior Office Action.

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5535368 to Ho et al.

Regarding claim 1, Ho discloses a memory board comprising a printed wiring board having a connector terminal (see column 1 lines 19-23 and column 3 lines 10-20), a memory device mounted on the printed wiring board and storing data used by an apparatus to which the printed wiring board is attached (see column 3 lines 29-34 and 54-64), and a memory controller mediating data communication between the apparatus and the memory device (see column 3 lines 47-51), wherein the memory controller is a programmable device where the content of the mediation is changeable (see column 3 lines 40-51, column 4 lines 5-60, and column 5 lines 5-8).

Regarding claim 4, Ho discloses an image forming apparatus comprising: a memory board (see column 1 lines 19-23, column 2 lines 15-21, and column 3 lines 10-20), a connector for attaching the memory board (see column 3 lines 29-34), and a

controller accessing the attached memory board to perform a control associated with image formation (see column 3 lines 47-50), wherein the memory board, which is connected to the connector, comprises a printed wiring board having a connector terminal, a memory device mounted on the printed wiring board, and storing data used by an apparatus to which the printed wiring board is attached, and a memory controller mediating data communication between the apparatus and the memory device, and being a programmable device where the content of the mediation is changeable (see column 3 lines 40-64, column 4 lines 5-60, and column 5 lines 5-8).

Regarding claim 7, Ho discloses a memory board comprising: a printed wiring board having a connector terminal (see column 1 lines 19-23 and column 3 lines 10-20), a memory device mounted on the printed wiring board, and storing data used by an apparatus to which the printed wiring board is attached (see column 3 lines 29-34 and 54-64), and a memory controller converting a control for the memory device transmitted from the apparatus into a control compatible with the kind of the memory device (see column 3 lines 40-51).

Regarding claims 2 and 5, Ho discloses the system discussed in claims 1 and 4, and further discloses wherein the memory controller converts a control sent from the apparatus into a control compatible with the kind of the memory device (see column 3 lines 40-51).

Regarding claims 3 and 9, Ho discloses the system discussed in claims 1 and 7, and further discloses wherein the memory controller stores a setting information

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relevant to the memory device and mediates data communication according to the setting information (see column 3 lines 47-51 and column 4 lines 20-32 and 39-46).

Regarding claim 6, Ho discloses the system discussed in claim 4, and further discloses wherein the memory controller is programmed by the controller of the image forming apparatus (see column 3 lines 40-51).

5. Regarding claim 8, Ho discloses the system discussed in claim 7, and further discloses wherein the memory controller is a programmable device where the content of the conversion is changeable (see column 3 lines 40-50).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571) 272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached at (571) 272-7402. The fax number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mark R. Milia
Examiner
Art Unit 2622

MRM

Joseph R. POKRZEWKA
JOSEPH R. POKRZEWKA
PRIMARY EXAMINER
ART UNIT 2622